



PARTS LIST

NAT Part #: **NTX403-2**

Description: **NTX403 Transmitter Subassembly**

Document#: **NTX403-21701-0**

Rev: **1.00**

Prepared By:

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Checked By:

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Approved By:

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<u>IDENT</u>	<u>DESCRIPTION</u>	<u>MFR. P/N</u> <u>OR VALUE</u>	<u>PACKAGE</u>	<u>NAT P/N</u>	<u>QTY.</u>
<u>CAPACITORS</u>					
C200	SM, Ceramic, 50 V	470 pF	0603	11-02-471	10
C201	SM, Ceramic, 50 V	0.01 uF	0603	11-02-103	4
C202	SM, Aluminum Electrolytic, 35V	220 uF	AE-G	11-76-227	3
C203	SM, Ceramic, 50 V	470 pF	0603	11-02-471	
C204	SM, Tantalum Molded, 16 V	1 uF	3216	11-51-105	1
C205	SM, Ceramic, 50 V	47 pF	0603	11-02-470	3
C206	SM, Ceramic, 50 V	47 pF	0603	11-02-470	
C207	SM, Tantalum Molded, 16 V	10 uF	3528	11-49-106	2
C208	SM, Ceramic, 50 V	470 pF	0603	11-02-471	
C209	SM, Ceramic, 50 V	470 pF	0603	11-02-471	
C210	SM, Ceramic, 50 V	470 pF	0603	11-02-471	
C211	SM, Ceramic, 50 V	470 pF	0603	11-02-471	
C212	SM, Ceramic, 50 V	0.1 uF	0805	11-00-104	3
C213	SM, Ceramic, 50 V	470 pF	0603	11-02-471	
C214	SM, Ceramic, 50 V	470 pF	0603	11-02-471	
C215	SM, Aluminum Electrolytic, 35V	220 uF	AE-G	11-76-227	
C216	SM, Film, 50 V	1.0 uF	2824	11-29-105	1
C217	SM, Film, 50 V	0.1 uF	1913	11-24-104	1
C218	SM, Film, 50 V	0.01 uF	1206	11-22-103	1
C219	SM, Ceramic, 50 V	680 pF	0603	11-02-681	4
C220	SM, Ceramic, 50 V	680 pF	0603	11-02-681	
C221	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	11
C222	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C223	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C224	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C225	SM, Ceramic, 50 V	0.1 uF	0805	11-00-104	
C226	SM, Ceramic, 50 V	0.01 uF	0603	11-02-103	
C227	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C228	SM, Ceramic, 50 V	0.01 uF	0603	11-02-103	
C229	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C230	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C231	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C232	SM, Ceramic, 50 V	680 pF	0603	11-02-681	
C233	SM, Ceramic, 50 V	680 pF	0603	11-02-681	
C234	SM, Ceramic, 100 V	0.01 uF	1206	11-06-103	2
C235	SM, Ceramic, 50 V	0.1 uF	0805	11-00-104	
C236	SM, Ceramic, 50 V	3.9 pF	1206	11-05-399	4
C237	SM, Ceramic, 50 V	3.9 pF	1206	11-05-399	
C238	SM, Ceramic, 50 V	3.9 pF	1206	11-05-399	
C239	SM, Ceramic, 200 V	470 pF	1206	11-07-471	4
C240	SM, Ceramic, 200 V	470 pF	1206	11-07-471	

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C241	SM, Ceramic, 200 V	470 pF	1206	11-07-471	
C242	SM, Ceramic, 500 V	2.0 pF	1210	11-13-209	2
C243	SM, Ceramic, 500 V	11 pF	1210	11-13-110	1
C244	NOT INSTALLED			N/A	
C245	SM, Tantalum Molded, 20 V	4.7 uF	3528	11-52-475	1
C246	SM, Ceramic, 200 V	470 pF	1210	11-12-471	3
C247	NOT INSTALLED			N/A	
C248	SM, Ceramic, 300 V	120pF	1210	11-32-121	2
C249	SM, Ceramic, 300 V	120pF	1210	11-32-121	
C250	SM, Ceramic, 200 V	470 pF	1210	11-12-471	
C251	SM, Ceramic, 50 V	0.01 uF	1210	11-10-103	4
C252	SM, Ceramic, 200 V	470 pF	1210	11-12-471	
C253	SM, Ceramic, 50 V	0.01 uF	1210	11-10-103	
C254	SM, Ceramic, 500 V	47pF	1210	11-13-470	1
C255	SM, Ceramic, 500 V	15 pF	1210	11-13-150	1
C256	SM, Ceramic, 500 V	6.2pF	1210	11-13-629	1
C257	SM, Ceramic, 500 V	18 pF	1210	11-13-180	2
C258	SM, Ceramic, 50 V	3.9 pF	1206	11-05-399	
C259	SM, Ceramic, 50 V	2.2 pF	1206	11-05-229	1
C260	SM, Ceramic, 50 V	3.3 pF	1206	11-05-339	1
C261	SM, Ceramic, 500 V	3.6 pF	1210	11-13-369	2
C262	SM, Ceramic, 500 V	9.1 pF	1210	11-13-919	2
C263	SM, Ceramic, 500 V	8.2 pF	1210	11-13-829	2
C264	SM, Ceramic, 500 V	9.1 pF	1210	11-13-919	
C265	SM, Ceramic, 500 V	5.6 pF	1210	11-13-569	1
C266	SM, Ceramic, 500 V	13 pF	1210	11-13-130	1
C267	SM, Ceramic, 500 V	2.0 pF	1210	11-13-209	
C268	SM, Ceramic, 500 V	75 pF	1210	11-13-750	1
C269	SM, Ceramic, 50 V	56 pF	1206	11-05-560	1
C270	SM, Ceramic, 500 V	3.6 pF	1210	11-13-369	
C271	SM, Ceramic, 500 V	8.2 pF	1210	11-13-829	
C272	SM, Ceramic, 200 V	470 pF	1206	11-07-471	
C273	SM, Ceramic, 50 V	47 pF	0603	11-02-470	
C274	SM, Tantalum Molded, 16 V	10 uF	3528	11-49-106	
C275	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C276	NOT INSTALLED			N/A	
C277	SM, Aluminum Electrolytic, 35V	220 uF	AE-G	11-76-227	
C278	SM, Ceramic, 100 V	0.01 uF	1206	11-06-103	
C279	SM, Ceramic, 50 V	0.01 uF	1210	11-10-103	
C280	SM, Ceramic, 50 V	0.01 uF	1210	11-10-103	
C281	SM, Ceramic, 50 V	470 pF	0603	11-02-471	
C282	SM, Ceramic, 50 V	470 pF	0603	11-02-471	
C283	SM, Ceramic, 50 V	150 pF	0603	11-02-151	1
C284	SM, Ceramic, 50 V	0.01 uF	0603	11-02-103	
C285	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C286	SM, Ceramic, 500 V	0.7 pF	1210	11-13-079	1
C287	SM, Ceramic, 16 V, X7R, 5%	0.1 uF	0603	11-17-104	
C288	SM, Ceramic, 500 V	18 pF	1210	11-13-180	

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<u>DIODES</u>					
D200	SM, Rectifier, Schottky	BAT54A	SOT-23	74-30-054	1
D201	SM, Small Signal, Silicon	MMBD914	SOT-23	74-00-301	1
<u>DISPLAYS</u>					
DS200	SM, LED, Green	BG1101WTR	1101W	47-83-001	1
<u>CONNECTORS</u>					
J200	BNC, PCB Mount, Right Angle	136-1701-547		20-56-000	1
J201	Coaxial Jack, PC Mount		SSMB	20-60-000	1
J202	Strip Plug, Dbl Row Straight, PC Mnt		18 Pin	20-00-018	1
<u>RELAYS</u>					
K200	RG Series, 1 Pole, 2 Position	RG1ET-12V		65-40-012	1
<u>INDUCTORS</u>					
L200	SM, Inductor, Air Core	8.0 nH	A	35-63-000	2
L201	SM, Inductor, Air Core	8.0 nH	A	35-63-000	
L202	SM, Inductor, Air Core	12.5 nH	A	35-63-125	1
L203	SM, Inductor, Air Core	5.0 nH	A	35-63-002	3
L204	SM, Inductor, Air Core	5.0 nH	A	35-63-002	
L205	SM, Inductor, Air Core	5.0 nH	A	35-63-002	
L206	SM, Inductor, Air Core	90 nH	132-SM	35-63-003	1
L207	SM, Inductor	1 uH	1008	35-62-102	1
<u>TRANSISTORS</u>					
Q200	SM, Bi-Polar, Small Signal, NPN	MMBT3904LT1	SOT-23	76-03-904	8
Q201	SM, Bi-Polar, Small Signal, NPN	MMBT3904LT1	SOT-23	76-03-904	
Q202	SM, Bi-Polar, Small Signal, NPN	MMBT3904LT1	SOT-23	76-03-904	
Q203	SM, Bi-Polar, Small Signal, NPN	MMBT3904LT1	SOT-23	76-03-904	
Q204	SM, Bi-Polar, Small Signal, PNP	MMBT3906LT1	SOT-23	76-01-906	4
Q205	SM, Bi-Polar, Small Signal, PNP	MMBT3906LT1	SOT-23	76-01-906	
Q206	SM, Bi-Polar, Small Signal, PNP	MMBT3906LT1	SOT-23	76-01-906	
Q207	SM, Bi-Polar, Small Signal, NPN	MMBT3904LT1	SOT-23	76-03-904	
Q208	SM, Bi-Polar, Small Signal, NPN	MMBT3904LT1	SOT-23	76-03-904	
Q209	SM, Bi-Polar, Small Signal, NPN	MMBT3904LT1	SOT-23	76-03-904	
Q210	MOSFET, RF Power, N-Channel,	MRF166C	319-07	77-09-000	1
Q211	SM, Bi-Polar, Small Signal, PNP	MMBT3906LT1	SOT-23	76-01-906	
Q212	SM, Bi-Polar, Small Signal, NPN	MMBT3904LT1	SOT-23	76-03-904	
<u>RESISTORS</u>					
R200	SM, Thick Film, 1/16 W, 5%	100 kOhm	0603	70-60-104	9
R201	SM, Thick Film, 1/16 W, 5%	100 kOhm	0603	70-60-104	
R202	SM, Thick Film, 1/16 W, 5%	100 kOhm	0603	70-60-104	
R203	SM, Thick Film, 1/16 W, 5%	10 kOhm	0603	70-60-103	6
R204	SM, Thick Film, 1/16 W, 5%	2.2 kOhm	0603	70-60-222	1
R205	SM, Thick Film, 1/16 W, 5%	15 kOhm	0603	70-60-153	2
R206	SM, Thick Film, 1/16 W, 5%	15 kOhm	0603	70-60-153	
R207	SM, Thick Film, 1/16 W, 5%	47 Ohm	0603	70-60-470	3
R208	SM, Thick Film, 1/16 W, 5%	75 Ohm	0603	70-60-750	3
R209	SM, Thick Film, 1/16 W, 5%	75 Ohm	0603	70-60-750	
R210	SM, Thick Film, 1/16 W, 5%	75 Ohm	0603	70-60-750	
R211	SM, Metal Film, 1/8 W, 1%	22.6 kOhm	1206	70-54-2264	2
R212	SM, Thick Film, 1/16 W, 1%	2.67 kOhm	0603	70-58-2673	3
R213	SM, Thick Film, 1/16 W, 1%	301 Ohm	0603	70-58-3012	3

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R214	SM, Thick Film, 1/16 W, 1%	2.67 kOhm	0603	70-58-2673	
R215	SM, Thick Film, 1/16 W, 1%	301 Ohm	0603	70-58-3012	
R216	SM, Thick Film, 1/16 W, 1%	301 Ohm	0603	70-58-3012	
R217	SM, Thick Film, 1/16 W, 5%	47 Ohm	0603	70-60-470	
R218	SM, Thick Film, 1/16 W, 1%	2.05 kOhm	0603	70-58-2053	2
R219	SM, Thick Film, 1/16 W, 1%	2.05 kOhm	0603	70-58-2053	
R220	SM, Metal Film, 1/8 W, 1%	2.37 kOhm	1206	70-54-2371	1
R221	SM, Thick Film, 1/16 W, 1%	0.00 Ohm	0603	70-58-0000	1
R222	SM, Thick Film, 1/16 W, 5%	4.7 kOhm	0603	70-60-472	4
R223	SM, Thick Film, 1/16 W, 1%	806 Ohm	0603	70-58-8062	1
R224	SM, Thick Film, 1/16 W, 1%	2.67 kOhm	0603	70-58-2673	
R225	SM, Thick Film, 1/16 W, 1%	53.6 Ohm	0603	70-58-5361	2
R226	SM, Thick Film, 1/16 W, 5%	10 Ohm	0603	70-60-100	4
R227	SM, Thick Film, 1/16 W, 5%	10 Ohm	0603	70-60-100	
R228	SM, Trim Pot, Top Adjust	10 kOhm	3269W	60-21-103	3
R229	SM, Thick Film, 1/16 W, 5%	10 kOhm	0603	70-60-103	
R230	SM, Thick Film, 1/16 W, 5%	33 kOhm	0603	70-60-333	4
R231	SM, Thick Film, 1/16 W, 5%	100 kOhm	0603	70-60-104	
R232	SM, Thick Film, 1/16 W, 1%	53.6 Ohm	0603	70-58-5361	
R233	SM, Thick Film, 1/16 W, 5%	10 Ohm	0603	70-60-100	
R234	SM, Thick Film, 1/16 W, 5%	10 Ohm	0603	70-60-100	
R235	SM, Trim Pot, Top Adjust	10 kOhm	3269W	60-21-103	
R236	SM, Trim Pot, Top Adjust	50 kOhm	3269W	60-21-503	1
R237	SM, Thick Film, 1/16 W, 5%	10 kOhm	0603	70-60-103	
R238	SM, Thick Film, 1/16 W, 5%	10 kOhm	0603	70-60-103	
R239	SM, Thick Film, 1/16 W, 5%	33 kOhm	0603	70-60-333	
R240	SM, Thick Film, 1/16 W, 5%	33 kOhm	0603	70-60-333	
R241	SM, Thick Film, 1/16 W, 5%	100 kOhm	0603	70-60-104	
R242	SM, Thick Film, 1/16 W, 5%	100 kOhm	0603	70-60-104	
R243	SM, Thick Film, 1/16 W, 5%	4.7 kOhm	0603	70-60-472	
R244	SM, Thick Film, 1/16 W, 5%	33 kOhm	0603	70-60-333	
R245	SM, Thick Film, 1/16 W, 5%	100 kOhm	0603	70-60-104	
R246	SM, Carbon Film, 1/2 W, 5%	110 Ohm	2010	70-52-112	1
R247	NOT ISSUED			N/A	
R248	SM, Metal Film, 1/8 W, 1%	22.6 kOhm	1206	70-54-2264	
R249	SM, Trim Pot, Top Adjust	10 kOhm	3269W	60-21-103	
R250	SM, Metal Film, 1/8 W, 1%	1.00 kOhm	1206	70-54-1003	1
R251	SM, Carbon Film, 1/8 W, 5%	82 Ohm	1206	70-50-821	3
R252	SM, Carbon Film, 1/8 W, 5%	68 Ohm	1206	70-50-681	3
R253	SM, Carbon Film, 1/8 W, 5%	100 Ohm	1206	70-50-102	2
R254	SM, Carbon Film, 1/8 W, 5%	82 Ohm	1206	70-50-821	
R255	SM, Carbon Film, 1/8 W, 5%	22 Ohm	1206	70-50-221	2
R256	SM, Carbon Film, 1/8 W, 5%	100 Ohm	1206	70-50-102	
R257	SM, Carbon Film, 1/8 W, 5%	68 Ohm	1206	70-50-681	
R258	SM, Carbon Film, 1/8 W, 5%	82 Ohm	1206	70-50-821	
R259	SM, Carbon Film, 1/8 W, 5%	68 Ohm	1206	70-50-681	
R260	SM, Carbon Film, 1/8 W, 5%	22 Ohm	1206	70-50-221	
R261	SM, Thick Film, 1/16 W, 5%	47 Ohm	0603	70-60-470	
R262	Silicone, Axial, 3 W, 5%	82 Ohm		70-05-820	1
R263	SM, Thick Film, 1/16 W, 5%	220 kOhm	0603	70-60-224	1
R264	SM, Thick Film, 1/16 W, 5%	10 kOhm	0603	70-60-103	
R265	SM, Thick Film, 1/16 W, 5%	12 kOhm	0603	70-60-123	1

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R266	SM, Thick Film, 1/16 W, 5%	4.7 kOhm	0603	70-60-472	
R267	SM, Thick Film, 1/16 W, 5%	330 Ohm	0603	70-60-331	1
R268	SM, Thick Film, 1/16 W, 5%	1.0 MOhm	0603	70-60-105	1
R269	SM, Thick Film, 1/16 W, 5%	4.7 kOhm	0603	70-60-472	
R270	SM, Thick Film, 1/16 W, 5%	100 kOhm	0603	70-60-104	
R271	SM, Thick Film, 1/16 W, 5%	10 kOhm	0603	70-60-103	
R272	SM, Thick Film, 1/16 W, 5%	100 kOhm	0603	70-60-104	
R273	SM, Thick Film, 1/16 W, 5%	1.0 kOhm	0603	70-60-102	1
R274	NOT INSTALLED			N/A	
<u>INTEGRATED CIRCUITS</u>					
U200	SM, Amp, Monolithic	ERA-5SM		54-10-005	1
U201	Amp, Monolithic	MHL8118	Case 448-02	54-10-000	1
U202	SM, RF Log Detector/Contoller	AD8313	uSOIC-8	34-57-8313	2
U203	SM, Op-Amp, Dual	SSM2275S	SO-8	34-02-227	1
U204	RF Splitter, 2 Port	JPS-2-1W		54-02-210	1
U205	Oscillator, Voltage Controlled, RF	V440MC02	MINI-14S	54-09-000	1
U206	SM, Regulator, Fixed +5V	MIC2954-02BS	SOT-223	34-23-005	1
U207	SM, PLL Synthesizer	MC145193F	SO-20	34-60-193	1
U208	SM, RF Log Detector/Contoller	AD8313	uSOIC-8	34-57-8313	
U209	SM, CMOS, 8 Bit Shift Register	74HC595	SO-16	31-13-595	1
<u>MECHANICAL PARTS</u>					
M201	PCB, Transmitter, NTX403	Rev 1.00		15-NX-402	1

End of Parts List

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